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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER NUMBER

DATE MAILED:

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

PTO-90C Rev. 11-00

1- File Copy

Office Action Summary

Application No.	Applicant(s)
09/523,619	Yoshimura et al.
Examiner	**Art Unit**
Callie Shosho	1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) X Responsive to communication(s) filed on *Apr 30, 2001*

2a) ☐ This action is **FINAL.** 2b) X This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) X Claim(s) *1-21* is/are pending in the applica

4a) Of the above, claim(s) _____ is/are withdrawn from considera

5) Claim(s) _____ is/are allowed.

6) X Claim(s) *1-21* is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirem

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are objected to by the Examiner.

11) The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) X Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____

18) ☐ Interview Summary (PTO-413) Paper No(s) _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other

DETAILED ACTION

1. All outstanding rejections except for those described below are overcome by applicants' amendment filed 4/30/01.

The following rejection is non-final, however, in light of the new grounds of rejection set forth below utilizing the English translations of JP 10074438 and JP 7118592, which were previously unavailable, as well as the use of Yolles (U.S. 3,053,683) and EP 600205.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 2, 4, 6, 8, 10, 12, 14, and 21 are rejected under 35 U.S.C. 102(a) as being anticipated by JP 10077438.

JP 10077438 discloses a water-based metallic gloss ink comprising 1-10 wt% pearl pigment such as mica coated with titanium oxide or iron oxide which has diameter of 5-60 μm, 0.1-10 wt% colorant, 0.1-3 wt% water-soluble resin, 0.1-5 wt% aluminum powder pigment, water-soluble solvent, and water (paragraphs 4-7 and 10).

Although there is no explicit disclosure that the ink is glittering, given that the ink of JP 10077438 contains identical type and amounts of metallic pigment as presently claimed, it is clear that the ink of JP 10077438 would inherently glitter.

In light of the above, it is clear that JP 10077438 anticipates the present claims.

4. Claims 2, 6, 8, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 7118592.

JP 7118592 discloses a water-based metallic gloss ink comprising 5-20 wt% pearl pigment such as mica coated with titanium oxide or iron oxide which has diameter of 5-60 μm, water-soluble resin, water-soluble solvent, and water (paragraphs 7-11). From example 1, it is calculated that the ink comprises, for example, 1% water-soluble resin.

Although there is no explicit disclosure that the ink is glittering, given that the ink of JP 7118592 contains identical type and amounts of metallic pigment as presently claimed, it is clear that the ink of JP 7118592 would inherently glitter.

In light of the above, it is clear that JP 7118592 anticipates the present claims.

5. Claims 2, 4, 6, 8, 10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 600205.

Pending translation, it is noted that EP 600205 discloses a water-based metallic gloss ink comprising 1-10% pigment such as mica coated with titanium oxide or iron oxide which has

diameter of less than 20 μm, 0.5-20% water-soluble resin, 0.5-10% pigment, 0.1-10% dye, water-soluble solvent, and water.

Although there is no explicit disclosure that the ink is glittering, given that the ink of EP 600205 contains identical type and amounts of metallic pigment as presently claimed, it is clear that the ink of EP 600205 would inherently glitter.

In light of the above, it is clear that EP 600205 anticipates the present claims.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 14 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over either JP 10077438, JP 7118592, or EP 600205 either of which in view of Okuda et al. (U.S. 5,510,397).

The disclosures with respect to JP 10077438, JP 7118592, and EP 600205 in paragraphs 3, 4, and 5, respectively, are incorporated here by reference.

The difference between JP 10077438, JP 7118592, or EP 600205 and the present claimed invention is the requirement in the claims of opacifying pigment.

Okuda et al., which is drawn to ink composition, disclose the use of opacifying pigment in order to produce an ink with good optical density (col.2, lines 43-60 and col.3, lines 51-63).

In light of the motivation for using opacifying pigment disclosed by Okuda et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use such pigment in the ink of either JP 10077438, JP 7118592, or EP 600205 in order to produce an ink with good optical density, and thereby arrive at the claimed invention.

8. Claims 1, 5, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 7118592 in view of either Babler (U.S. 5,554,217), Sullivan (U.S. 5,753,371), or Yolles (U.S. 3,053,683).

JP 7118592 discloses a water-based metallic gloss ink comprising 5-20 wt% pearl pigment such as mica coated with titanium oxide or iron oxide which has diameter of 5-60 μm, water-soluble resin, water-soluble solvent, and water (paragraphs 7-11). From example 1, it is calculated that the ink comprises, for example, 1% water-soluble resin.

The difference between JP 7118592 and the present claimed invention is the requirement in the claims of glass flake.

Babler, which is drawn to pigment compositions suitable for use in inks, discloses the use of pearlescent pigment such as glass flakes having average particle size of 1-50 μm in order to produce an ink with excellent rheological and gloss properties which demonstrates an excellent flop effect (col.2, lines 13-16 and col.4, lines 15-20 and 32-35).

Alternatively, Sullivan et al., which is drawn to pearlescent pigments suitable for use in inks, disclose the use of glass flakes having average particle diameter of 1-150 mm wherein the

motivation for using such glass flakes is that they are very resilient and optically attractive (col.2, lines 28-39).

Alternatively, Yolles disclose a metal coated glass flake suitable for use in coating compositions for substrates such as paper, i.e. ink, in order to produce a glittery finish (col.1, lines 10-13 and 24-28, col.2, line 15, col.3, lines 54-59, and col.8, line 14).

In light of the motivation of using glass flakes disclosed by either Babler, Sullivan, or Yolles as described above, it therefore would have been obvious to one of ordinary skill in the art to use glass flakes in JP 7118592 in order to produce an ink with excellent rheological and gloss properties which demonstrates an excellent flop effect, or alternatively, an ink which is resilient and optically attractive, or alternatively, produce an ink with a glittery finish, and thereby arrive at the claimed invention.

9. Claims 1, 3, 5, 7, 9, 11, 15-18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota et al. (U.S. 6,039,796) in view of either Babler (U.S. 6,063,182) or Yolles (U.S. 3,053,683).

Kubota et al. disclose an aqueous based ink comprising inorganic pigment, 0.5-25 wt% colorant, water-soluble solvent, water, 0.5-30 wt% water-soluble resin, and 0.1-40 wt% anionic or nonionic resin emulsion (col.3, lines 61 and 65, col.4, lines 15-17, col.5, line 32, col.6, lines 15 and 40-43).

The difference between Kubota et al. and the present claimed invention is the requirement in the claims of glass flakes.

Babler, which is drawn to ink compositions, disclose the use of 1-30 wt% inorganic pigment such as glass flake having average particle size of 0.5-10 mm (col.5, lines 13-35) wherein the motivation for using such pigment is that it is they are less dusty and easily handled and dispersed (col.3, lines 9-11, 15-17, and 22-24).

Alternatively, Yolles disclose a metal coated glass flake suitable for use in coating compositions for substrates such as paper, i.e. ink, in order to produce a glittery finish (col.1, lines 10-13 and 24-28, col.2, line 15, col..3, lines 54-59, and col.8, line 14).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to use glass flakes as the inorganic pigment in the ink of Kubota et al. in order to produce an ink which is easily handled and dispersed, or alternatively, produce an ink with a glittery finish, and thereby arrive at the claimed invention.

10. Claims 13 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota et al. in view of either Babler or Yolles as applied to claims 1, 3, 5, 7, 9, 11, 15-18, and 20 above, and further in view of Whyzmuzis (U.S. 5,714,526).

The difference between Kubota et al. in view of either Babler or Yolles and the present claimed invention is the requirement in the claims of opacifying pigment.

Whyzmuzis, which is drawn to ink composition, discloses the use of opacifying pigment (col.7, lines 4-10) in order to produce an ink with good optical density.

In light of above, it therefore would have been obvious to one of ordinary skill in the art to use such pigment in the ink of Kubota et al. in order to produce an ink with good optical density, and thereby arrive at the claimed invention.

11. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota et al. in view of either Babler or Yolles as applied to claims 1, 3, 5, 7, 9, 11, 15-18, and 20 above, and further in view of Morita et al. (U.S. 6,099,629).

The difference between Kubota et al. in view of either Babler or Yolles and the present claimed invention is the requirement in the claims of the minimum film forming temperature of the resin emulsion.

Morita et al., which is drawn to ink composition, disclose the use of resin emulsion with minimum film forming temperature of less than 5^0C. The motivation for using such resin emulsion is to control the stickiness and drying of the ink (col.6, lines 38-50 and col.13, lines 47-51).

In light of the motivation for using resin emulsion with specific minimum film forming temperature as described above, it therefore would have been obvious to one of ordinary skill in the art to use such resin emulsion in the ink of Kubota et al. in order to control the stickiness and drying of the ink, and thereby arrive at the claimed invention.

Response to arguments

12. Applicants' arguments with respect to Kanabayashi et al. (U.S. 6,083,311), Miyashita et al. (U.S. 5,474,603), JP 09249844, and JP 8151547 have been considered and are moot in view of the discontinuation of these references as applied against the present claims.

13. Applicants' arguments filed 4/30/01 have been fully considered but, with the exception of arguments relating to the Kanabayashi et al., Miyashita et al., JP 09249844, and JP 8151547 references, they are not persuasive.

Specifically, the applicant argues that:

(a)The inks of JP 10077438 and JP 7118592 utilize aluminum pigment powder which forms a metallic-hued ink not a glittering ink as presently claimed.

(b) Babler and Sullivan disclose glass flakes which are different than those presently claimed.

(c) There is no disclosure in Kubota et al. of glass flake coated with metal.

With respect to argument (a), applicants argue that the inks of either JP 7118592 or JP 10077438 are not glittering. However, this position is not understood for the following reasons.

Firstly, it is noted that JP 7118592 does not disclose the use of aluminum powder in the ink, but rather discloses on page 4 that aluminum powder is used in the inks of the prior art and that while JP 10077438 does disclose the use of aluminum powder, this is in addition to the use

of metal coated pigment. Thus, each reference meets the claimed limitation of metal coated pigment. Further, each of the references discloses the use of mica coated with titanium oxide or iron oxide which is identical to the pigment utilized in the present invention as disclosed on page 5, lines 7 and 15-16 of the present specification. Given that each of the Japanese references discloses ink composition identical to that presently claimed, including the type of pigment, it is the examiner's position, absent evidence to the contrary, that the inks of each of the references is inherently glittering.

With respect to argument (b), it is noted that Babler discloses the use of glass flakes, while Sullivan disclose the use of metal oxide coated glass flakes. Applicants argue that these glass flakes are different than the metal coated glass flakes of the present invention. However, it is noted that there is no requirement in the present claims that the glass flake is metal coated. Rather, the present claims only require glass flake pigment which is clearly met by either Babler or Sullivan. Further, examiner calls applicants attention to the use of a new reference against the present claims, namely Yolles (see paragraphs 8-9) which does in fact disclose a metal coated glass flake.

With respect to argument (c), it is agreed that Kubota et al. do not disclose the use of metal coated glass flake. However, as discussed above, the present claims only require the use of

glass flake and further, this is why the reference is used in combination with either Babler or Yolles.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie Shosho whose telephone number is (703) 305-0208. The examiner can normally be reached on Mondays-Thursdays from 7:00 am to 4:30 pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3599.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Callie Shosho

7/10/01

Vasu Jagannathan

VASU JAGANNATHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700